GEOCHEMICAL SURVEY

Green Bay Mining and Exploration Company Limited

92I/10W

Patrick Groups Highland Valley, B. C

March 15, 1957 V. B. Meen

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KINNAIRD AYLEN & COMPANY

CHARTERED ACCOUNTANTS
302 IMPERIAL BANK BUILDING
EDMONTON, ALBERTA

G. D. K. KINNAIRD, F.C.A.
B. G. AYLEN, F.C.A
J. M. MEIKLE, B. COM., C.A.

D. L. BRANDELL, B. COM., C.A.
G. E. PEARSON, B. COM., C.A.
J. W. STANSBERRY, B. COM., C.A.

March 21, 1957

To the Directors,
Green Bay Mining and Exploration Co. Ltd.,
Royal Trust Building,
EDMONTON, Alberta.

Dear Sirs:

As requested by you we have examined certain records of the company in regard to the expenditures made by the company on the Patric Group of claims nos. 1 - 16 inclusive and from such examination it would appear that the company has expended the amount of $ 4,423.55 on the claims detailed as follows:

Preparation of maps	$ 130.00
Soil testing and sampling	526.50
Assays	120.00
Wages	3,647.05
	$ 4,423.55

Yours very truly,

Kinnaird, Aylen & Company

Chartered Accountants

BGA/ra

REPORT ON THE

GEOCHEMICAL SURVEY

of the PATRICK A & B Groups

GREEN BAY MINING & EXPLORATION

COMPANY LIMITED

HIGHLAND VALLEY, B. C.

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GEOCHEMICAL SURVEY

of the PATRICK A & B Groups

GREEN BAY MINING & EXPLORATION COMPANY LIMITED

HIGHLAND VALLEY, B. C.

INTRODUCTION

A geochemical survey was carried out on the PATRICK A and PATRICK B groups of mineral claims in the Highland Valley for the Green Bay Mining and Exploration Company Limited during the summer of 1956. The work was carried out under the personal direction of Dr. V. D. Meen, and under the general supervision of D. W. Newman, Consulting Engineer, of Edmonton, Alberta. Dr. Meen is the head geologist of the division of geology and mineralogy of the Royal Ontario Museum in Toronto. The following report on the soil testing survey and the accompanying map by Dr. Meen are submitted in compliance with the Mineral Act of British Columbia as assessment on the PATRICK 1 - 12 claims for a period of one year.

This pedogeochemistry programme was carried out as the initial means of exploring the group of claims for copper mineralization.

Report on the

PATRICK CLAIMS

Prepared for Green Bay Mining and Exploration Limited, Edmonton

by

V. B. Meen, M. A., PhD.

Location of Property

The Patrick Claims are located in the Highland Valley Area of Southwestern British Columbia. They are adjacent to and partially surround the northeast corner of the Wildcat group of the Salmo Prince property. They are bounded on the south by the Thumper group and fractions staked between the Wildcat, Thumper and Patrick groups. These are known as the Loco fractions.

Area of Property

Although the property was said to consist of 18 claims, because of overlap on the Wildcat group, small areas of Claims 4, 5, 7, and 10 are lost and only small areas of Claims 6 and 8 are retained. Patrick claims 13-18 were said to lie to the west of Claims 8, 10, and 12. However, search on several occasions in this area failed to locate the posts or the location line. These claims were staked in the winter in heavy bush with much deadfall and this set of circumstances may account for the failure to locate these claims. The area reported on here totals about 840 acres.

Although it does not show on the surface to the casual observer, a fraction exists between Claims 5 and 7. Cowan staked this but due to a technicality based on the wording on his posts, the Mining Recorder in Vancouver would not accept it. He appealed to the main office in Victoria, but the Recorder's decision was upheld.

Access to Property

During the field season of 1956, the property was reached by motor

road, 28 miles, from Ashcroft, B. C. through the Highland Valley. The road terminated at the Salmo Prince camp. Late in the season, a rough road was bulldozed from this camp a further half mile, to the zero-point on their base-line. A poor trail along this base-line for 5,600 feet, then easterly along their 5,600 line for 3,600 feet gave access to the centre of the Patrick Group. A temporary camp was set up on a northeasterly flowing creek on the Salmo Prince about 300 feet south of the initial post of Patrick Claim 7.

The area adjacent to this creek in the Patrick Claims 5 and 7, and the intervening fraction would be excellent for the establishment of a camp from which to carry out development work on the property. The deadfall covering this area could be readily removed. The creek would supply sufficient water for ordinary development operations.

Arrangements could probably be made with the operators of the Salmo Prince property for use of their road and to bulldoze a road across their property to the suggested campsite. The location of this road might follow their baseline to the intersection with the creek at about 3,000 feet and thence, along the high ground on either side of the creek to the Patrick Claims. This is sandy overburden with fairly heavy bush and some deadfall. However, it should not present much difficulty to a bulldozer.

Examination of the Claims

Camp gear was packed into the property on July 14 and removed August 16. The work was carried out in about 1,200 man-hours by Mr. L. I. Cowan and four line-cutters. About twenty percent of the time was overtime; the weather was excellent.

An examination of the surface outcrop and general conditions was made by the writer and consultation with other operators in the area was most useful and is gratefully acknowledged. Mr. Cowan carried out the work

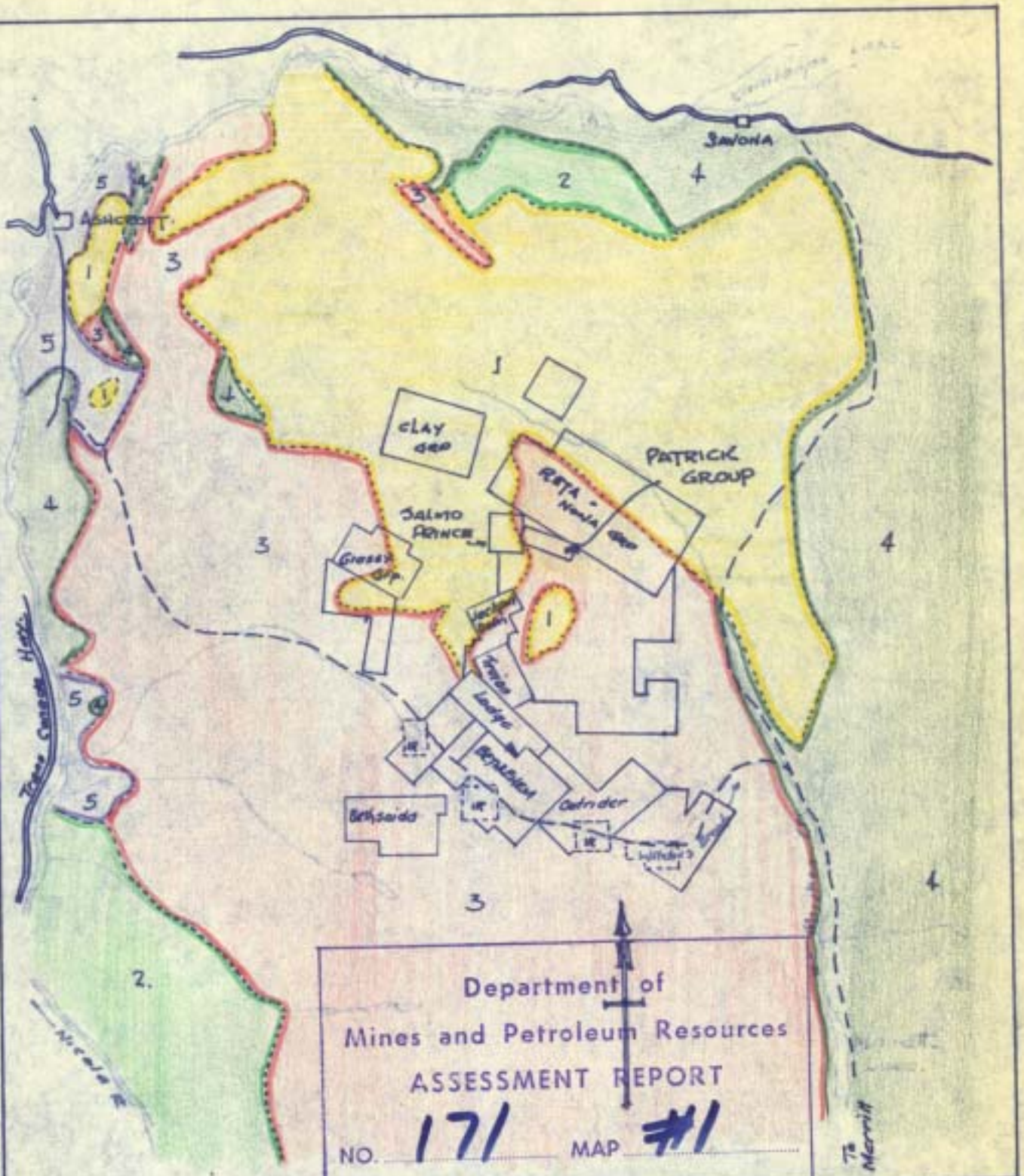
after consultation with the writer, but it was his tremendous drive and the good spirit which he developed in the men that made it possible to complete this preliminary survey in the time available to us.

The claims were traversed on foot to locate the claim posts and to establish the approximate bearing of the location line. It was apparent that little rock outcropped, and it was decided to undertake a geochemical survey for copper.

A baseline was initiated from the Initial post of Claims 1 and 2, on a bearing of 290° (mag.) and carried until it intersected the east boundary of the Wildcat Group. In this distance it had deviated about 200 feet from the location line. It was therefore, relocated on the location line, the bearing changed to 295° (mag.) and continued across the Wildcat Group and then on across the Patrick Claims. Again there was some deviation from the location line. All the claim posts were located to this baseline by compass bearing and tape survey.

Stations were located on this baseline at 200 foot intervals and from these lines, were run on a bearing of 20° (mag.) in both directions to the outer boundaries of the claims. In Patrick Claims 2 and 4, these lines were stopped short on intersection with a cut line which purports to be the boundary of the Loco Claims. It was realised after the field work, that since the Loco claims were staked after the Patrick Claims, this line is not valid. Because of the deviation of the baseline from the location line, some of the lines were cut beyond the boundaries of Claims 9 and 11, and the lines across Claims 10 and 12 fell about 200 feet short.

The lines were designated by number, to indicate hundreds of feet from the southern end. Thus N-26 signifies 2,600 feet north of the south boundary. An error in recording omitted N-40 and so all lines north of N-38 should have 200 feet subtracted in order to locate them properly. Thus N-48 is 4,800 minus 200, or 4, 600 feet north of the south boundary.



GREEN BAY EXPLORATION & DEVELOPMENT Coy.

GEOLOGICAL MAP OF HIGHLAND VALLEY AREA - KAMLOOPS

SCALE 4 MI = 1 INCH

traced - Map 1010 A - Ashcroft Sht.

KAMLOOPS GRP - Recent Vol.	1
SPENCES BR. GRP - Lava.	2
GUICHON BATHOLITH -	3
NICOLA GROUP	4
CACHE CR. GROUP	5

HIGHWAY

ROADS - SECONDARY

Stations were located at 100-foot intervals on all transverse lines and were measured from the baseline. Each station was designated as e st or west of the baseline. Thus N26 - 3 + 00W is a point 300 feet west of the baseline on the line N-26.

On lines N-20W and N-22W, samples were taken at each station, and at the 50-foot positions between them. It was realized quickly that there was insufficient time to follow this method over the whole area. Also, in conversation with other operators in the area, it was learned that initial investigations were often carried out at 100-foot, or greater, intervals. All further sampling was therefore carried out at 100-foot intervals, taking the samples at the stations referred to.

The sampling procedure was as follows: a hole 8 to 12 inches deep was dug and a 2 to 3 ounce sample devoid of humus was taken from the bottom. This was placed in a new plastic envelope, sealed and numbered. These samples were sent to Mr. F. C. Darcell, Vancouver, B. C. for assay for copper. The results, given in parts per million, have been plotted on the accompanying map and a copy of the assay returns is attached hereto.

Opinions seem to vary as to what value in parts per million constitutes an anomalous condition in this area. The figures range from one to three. Several factors may have a bearing on the figure for an ore-body of given composition. Among these are the thickness of overburden, fineness of material in the overburden, and moisture content. The thicker the overburden, the lower the assay figure even to there being no anomaly noted. The finer the material, the higher the value. This is also the case as the dampness of the ground increases. These points must be borne in mind in evaluating the results obtained.

Anomalous Area #1

What seems to be the most interesting area occurs on the lines N-26W-30W in Claims 4 and 6. This is an irregularly-shaped area about

400 feet by 600 feet in which thirteen samples yielded values up to twenty, with an average of about 4½. Only three samples fell below three. An additional sample was taken inadvertently over the boundary in the Wildcat Group and gave a value of ten.

Low values, but with one reading of four to the north in Claims 3 and 5 might indicate an extension of this anomaly in that direction.

Anomalous Area #2

To the south of Area #1 in Claim 4, there is a small area 350 feet by 250 feet in which ten samples taken at 50-foot intervals average nearly 2½. These figures may be somewhat high due to swampy conditions which occur here.

Anomalous Area #3

This area is located on the northwest boundary of Claim #5 and extends into the fraction which lies between Claims 5 and 7. The area is about 250 feet in diameter and six samples give an average value of two.

Anomalous Area #4

This area located in Claim 5 is about 400 feet by 500 feet in greatest dimensions. Eight samples gave four blanks but also four with a value of three or more.

Anomalous Area #5

This area lies partly in each of Claims 1 and 3. It is about 1,500 feet by 500 feet and trends north-south. Granite outcrops in the north end of this area but no sulphide mineralization was noted. Thirty samples, several of which gave assays higher than 5 gave an average value of 1 2/3.

Anomalous Area #6

This area lies a short distance north of Area #5 and is partly in Claim 3 and partly in Claim 5. It trends roughly north-south, and is

approximately 1,450 feet by 450 feet. An average value of 1½ was obtained from 26 assays.

Anomalous Area #7

This is a roughly circular area in Claim 12, measuring about 1,000 feet by 900 feet in which 41 samples gave an average value of 1¼ with a high of three. The uniformity of the assays might suggest either a large low-grade deposit or a higher grade deposit covered by a considerable thickness of overburden.

Other Anomalous Assays

Numerous assays of one and two, but sometimes higher, even to seven, were obtained and are plotted on the map. These are either so scattered, are low in value, or lie in swamp areas that they do not warrant attention unless some of the other areas prove as ore-bodies.

Conclusions

The assay values obtained indicate several areas where anomalous conditions with reference to copper content of the soil exist. The values within an anomalous area may appear quite erratic. However, this may be attributable to the wide spacing used in sampling, possible local differences in the texture of the soil, or soil condition, and also to possible differences in the zone, in the soil, from which the samples were taken.

Where an anomalous area shows any directional trend, this direction is roughly north-south. This is in accord with information gained on other properties in the vicinity that mineralized zones there have a north-south trend.

It is not possible to judge the value of these anomalous areas without further investigation.

Recommendations

1. The fraction lying between Claims 5 and 7 should be staked and recorded at the first opportunity in order to keep these claims as one property and also because an anomalous area is indicated in this fraction.

2. Further investigation should be made of the most interesting anomalous areas. On the basis of present data, the most interesting areas are numbers 1, 2, 5, 6, 3, 4, and 7, possibly in that order. It should be borne in mind, however, that this evaluation is based on samples taken at widely spaced intervals and that the results in each case are subject to variations based on many factors.

If data are to be obtained immediately, then a diamond-drilling campaign could be undertaken. However, if the investigation can be delayed until the next field season, the next step should be further sampling. Samples should be taken from the 50-foot intervals between those already obtained, and at 50-foot intervals along lines spaced equally between the present 200-foot spaced lines. This sampling should be extended for 100 to 200 feet beyond the presently delimited boundary of the anomalous areas to make more certain of the position of this boundary. For example, there is a possibility that the lean area between Areas #1 and #2 might prove to be narrower than it appears with current data.

If the results of sampling seem to warrant it, stripping by hand or by bulldozer could be carried out across these anomalous areas. The lack of outcrop in most of the property and the experience of other operators in the area indicate that the drift depth is probably 15 feet or more. A large bulldozer (type D-9) if available could strip this overburden with ease.

Diamond-drilling should follow or replace the stripping. Experience in the adjacent properties and vague trends in the outlines of the anomalies here indicate a north-south trend to mineralized zones. Until information to

the contrary is available, it would appear best to drill on an east-west bearing.

If favourable results are not obtained from drilling Areas #1 and #2, it would seem of little use to consider further any of the other anomalous areas.

October 20, 1956
34 Birchview Boulevard
Toronto 18, Ontario

V. B. Meen

THE ROYAL ONTARIO MUSEUM

100 QUEEN'S PARK

TORONTO 5, CANADA

DIVISION OF GEOLOGY AND MINERALOGY
V. B. MEEN, M.A., Ph.D.
HEAD AND CURATOR OF MINERALOGY
WALTER TOVELL, B.A., M.S.
CURATOR OF GEOLOGY

TELEPHONE: WALNUT 3-6641
CABLES: ROMA-TORONTO

March 20, 1957

BIOGRAPHICAL DATA - V. B. MEEN

Name MEEN, Victor Ben

Position - Head, Division of Geology and Mineralogy, Royal Ontario Museum, Toronto
- Professor, Department of Geological Sciences, University of Toronto

Address - 100 Queen's Park, Toronto 5, Ontario

Education - University of Toronto, B.A. Mineralogy and Geology, 1932;
M.A. Mineralogy, 1933;
Ph.D. Mineralogy, 1936.

Some Positions Held

Organizer and leader of four expeditions to study Chubb and Merewether meteor craters;
Field Geologist (summers), Ontario Department of Mines - 1936, 1939, 1940, 1941;
Assistant Provincial Assayer, Ontario, 1942-43; Acting Provincial Assayer, 1944;
Lecturer in Mineralogy and Petrography, University of Toronto, 1936-44;
Scientific Assistant, Royal Ontario Museum of Mineralogy, 1938-41;
Assistant Director, Royal Ontario Museum of Mineralogy, 1941-44;
Assistant Professor of Mineralogy, Department of Geological Sciences, University of Toronto 1944-51;
Associate Professor of Geology, Department of Geological Sciences, University of Toronto, 1951-56;
Professor, Department of Geological Sciences, U.of T. 1956- .

Director, Royal Ontario Museum of Mineralogy, 1944-45;
(July 1, 1946, The Royal Ontario Museum of Mineralogy, and The Royal Ontario Museum of Geology were merged, Dr. Meen becoming Associate Director)
Associate Director, The Royal Ontario Museum of Geology and Mineralogy, 1946-49;
Director, The Royal Ontario Museum of Geology and Mineralogy, 1949-55;
Head, Division of Geology and Mineralogy, Royal Ontario Museum, 1955- .
(Change of title, due to reorganization)

Member of the following:
Fellow, Mineralogical Society of America;
Fellow, Mineralogical Association of Canada;
Member, Mineralogical Society of Great Britain and Ireland;
Member, Geochemical Society of America;
Member, The Meteoritical Society;
Member, The Arctic Institute of North America;
Fellow, Geological Association of Canada;
Fellow, Geological Society of America.

Muriel Ward
Witness

V. B. Meen
Head.


PATRICK MINERAL CLAIMS
HIGHLAND VALLEY
BRITISH COLUMBIA
AUG. 1956
SCALE 1 INCH = 100 FEET
SWAMP
GRANITE
ANOMALOUS AREAS
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 171 MAP #2
#171